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Magical images for improving memory in medieval sources

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Magical images for improving memory in medieval sources

LAURI OCKENSTRÖM

Introduction

Medieval magic offered ways for addressing many problems and challenges in human life. It was used in human relations to raise love or separate couples and in healing and maintaining health; it offered protection and brought good luck; it helped in business, war, hunting, fishing, farming and sexual relations, and it dealt even with impotence (both causing and curing it); and it was used to summon or expel spirits, to create marvels (e.g. invisibility) and to improve various human skills necessary in every-day life or in certain professions.¹ One the most voluminous and important sources for medieval magic consists of the textual corpus of learned magic.² It covers hundreds of manuals and treatises, varying from works of one folio to compendiums of hundreds that give instructions for magical rituals and operations and for the fabrication of magical potions or items such as rings, mirrors, pendants and other auxiliaries. The full extent of the corpus and the variety and nature of its sub-genres are still being investigated.³

Magic also assisted with the important human faculty of memory⁴. Memory (*memoria*) as such, including all its synonyms and siblings (e.g. *reminiscentia*) played an eminent role in pre-modern Western civilization before the spread of writing and also the printing press. In ancient literature famous people were praised for their astonishing memory, and Cicero considered memory as proof of the divinity of the human soul.⁵ In the Middle Ages the status of memory was much higher than

¹ For general studies on medieval magic and its functions, see e.g. Richard Kieckhefer, *Magic in the Middle Ages*, Cambridge University Press: Cambridge 1989. Sophie Page & Catherine Rider, eds., *The Routledge History of Medieval Magic*. Routledge: London 2019. Catherine Rider, *Magic and Religion in Medieval England*, Reaktion Books: London 2013.

² By the terms “learned” and “learned magic” I refer to manuals distributed usually in Latin and connected to theoretical axioms from natural philosophy and astronomy to theology and demonology.

³ For example the following studies have provided approaches to the corpus of learned magic: Benedek Láng, *Unlocked Books: Manuscripts of Learned Magic in the Medieval Libraries of Central Europe*, University Park, Pennsylvania: The Pennsylvania State University Press, 2008. Frank F Klaassen, *The Transformations of Magic: Illicit Learned Magic in the Later Middle Ages and Renaissance*, University Park, Pennsylvania: The Pennsylvania State University Press, 2013. Sophie Page, *Magic in the Cloister: Pious Motives, Illicit Interests, and Occult Approaches to the Medieval Universe*, University Park, Pennsylvania: The Pennsylvania State University Press, 2013.

⁴ This article has been inspired by the *Dies mediaevales* conference (Turku, 10–12 March 2022), the theme of which was “Remembering, memory, and knowledge”.

⁵ Frances Yates, *Art of Memory* (Selected Works, volume 3) Routledge: London 1999, 44–5. Cicero, *Tusculanae Disputationes* 1.65.

today, and great geniuses were often described as people of superior memory.⁶ Meanwhile numerous manuals containing practical instructions for memory were written from the time of Cicero's *De oratore* to Giulio Camillo's *L'Idée del Teatro* in the sixteenth century. The traditions of magic also contained connections to cognitive capacities. The most evident example is *Ars notoria*, a widespread manual of ritual magic from the thirteenth century that provided extensive ritual guidelines for embracing the liberal arts and improving memory.⁷

With the exception of *Ars notoria*, memory appears surprisingly rarely in works of learned magic. Magical procedures connected to memory seem to appear only in a few sources and only in very isolated cases. This is somewhat surprising considering how extensive the tradition of learned magic was overall and how extensively memory was written about in other genres of literature. It is also remarkable that almost all discovered cases include instructions for fabricating an item that carries an image or a sign (if the item is not a figurine itself). These images, according to the textual instructions, were usually supposed to be carved or painted on ringstones, pendants or other items. This article explores this exceptional phenomenon: the images connected to memory in the medieval tradition of magic. It asks how these images relate in terms of type and operating principles to other magical images from the same sources. It also examines the function of magical images in relation to the means that memory guides and medical sources provided for supporting memory. This approach can provide a unique perspective – different from the viewpoints of mnemonic and scholastic philosophy – on the questions how the concept of memory and the possibilities of influencing memory were understood in the Middle Ages.

The sources of the study include *De XV stellis* ("On fifteen stars") of ancient origin, and two works translated from Arabic, the Latin *Picatrix* (an extensive compendium of magic that gained popularity in the fifteenth and sixteenth centuries) and *Liber Mercurii*, a unicum that has survived in a fifteenth century manuscript. Additionally, one image for improving memory is included in a text called sometimes *Erectio signaturae Mercurii pro acuenda memoria* which has not been a subject for modern research since the nineteenth century. It has survived in early seventeenth-century printed editions and in a seventeenth-century manuscript, but it has strong connections with the medieval tradition of magic.

Memory in Antiquity and the Middle Ages

In antiquity, memory was discussed in the context of philosophy, rhetoric and medicine. Since Aristotle, philosophers usually defined memory as a mental capacity that is located in the human soul and makes thinking possible. For Aristotle, the faculty of imagination was the mediator between the senses and the intellect. It collected sensory perceptions and forms images for the further use of the intellectual faculties. Since imagination is a collection of mental pictures, memory also dwells

⁶ Mary Carruthers, *Book of Memory: A Study of Memory in Medieval Culture*, Cambridge University Press: Cambridge 2008, 1–9.

⁷ For *Ars Notoria*, see Julien Véronèse, 'Magic, Theurgy, and Spirituality in the Medieval Ritual of the *Ars Notoria*', in Claire Fanger ed., *Invoking Angels: Theurgic Ideas and Practices, Thirteenth to Sixteenth Centuries*, Pennsylvania State University Press: University Park 2012, 37–78.

in the same part of the soul.⁸ Ancient sources repeatedly compared the process of memory to the act of imprinting a wax figure with a seal. Just as letters or figures can be drawn on soft wax, so perceptions leave their images in the imagination which, serving as the storage-room of mind, arranges and stores these images.⁹ Medical theories saw this as a physical process that took place in the brain. Memory was therefore connected to theories of humours, and the best that a human being could do to support the memory was to maintain the balance of humours with different diets and other medical remedies.¹⁰

Ancient philosophers also distinguished between natural memory and artificial memory, with the latter being improved through training.¹¹ In antiquity this task usually belonged to the field of rhetoric. Memory was one of the five parts of rhetoric and included a technique to improve the speaker's memory in order to deliver long speeches.¹² The technique was based on the concepts of place (*locus*) and image (*imago*). The first step was to memorise places – usually located in an imaginary building or another architecturally constructed space. Then images – the content of speech – were inserted in these places. The places must form a logical series so that a speaker can move back and forth in his imaginary places. The images in turn had to be unusual and extraordinary, as it would be easier to remember them.¹³ Most sources both in antiquity and in the Middle Ages underlined the visual aspect of the process and the importance of the unusualness of *imagines*.

Medieval conceptions of memory were largely adaptations of the ancient tradition. Memory was seen as a great natural gift, which, however, had to be cultivated and improved. Following the ancient wax metaphor, memory was a tabula on which the material produced by senses could be recorded. The concept of *loci* located in the brain was still in general use.¹⁴ In philosophical discussions artificial memory, usually located in the rational part of the soul, was defined as a capacity that formed and stored the mental images.¹⁵ In the Middle Ages the classical art of rhetoric was no longer practised, but artificial memory was discussed in moral philosophy as one of the human properties.¹⁶ In his *De inventione*, Cicero had divided one of the cardinal virtues, prudence (*prudentia*) into three parts, *memoria*, *intelligentia*, and *providentia*,¹⁷ and from the early Middle Ages on, artificial memory was treated from this point of view. The most notable scholastics who discussed memory were Albertus Magnus and Thomas Aquinas.¹⁸ Aquinas's model for improving memory, for example, was based on the ancient concept of *locus*, but it had been elaborated in a new direction and it also included the spiritual aspects of meditation and devotion. Instead of

⁸ Yates 1999, 32–3.

⁹ Yates 1999, 35–6; Carruthers 2008, 19, 90.

¹⁰ Carruthers 2008, 58–61.

¹¹ Yates 1999, 5.

¹² The five parts were *inventio*, *dispositio*, *elocutio*, *memoria*, *pronuntiatio*. The theory and memory technique of ancient rhetoric are best preserved in three Latin works: *Rhetorica ad Herennium*, Cicero's *De Oratore*, and Quintilian's *Institutio oratoria*. Yates 1999, e.g. 2, 5; Carruthers 2008, 89.

¹³ Yates 1999, 3–7.

¹⁴ Carruthers 2008, 18, 33, 37, 142.

¹⁵ Yates 1999, 62–63, 68, 71; Carruthers 2008, 62.

¹⁶ Yates 1999, 57, 61.

¹⁷ Cicero, *De inventione*, 2.53.

¹⁸ Yates 1999, 20, 54, 62, 70.

imagines, Aquinas speaks of corporeal similitudes that should be arranged in order (naturally the similitudes ought not to be too ordinary) and then meditated upon frequently.¹⁹ The ultimate goal of the process is not to remember a speech but to absorb Christian truths and maintain them in the soul. The Scholastic theories, Aquinas's idea of corporeal similitudes in particular, were highly influential in the fourteenth century and still resonated in the sixteenth century.²⁰

Along with the wax parable, another key metaphor used to describe memory was *thesaurus*, storage. Mary Carruthers has argued that the conception of the physical nature of the memory's images continued and dominated through the Middle Ages. For Aristotle, and also for the medieval scholastics, memory was bodily in nature. Mental images of memory were located in the forehead, and the body and its material composition therefore affected the ability to remember.²¹ Most of these concepts were based on ancient heritage or sources of Arabic medicine that used the doctrine of humours as a matrix. Memory was usually connected to a sanguine and especially to a melancholic temperament.²² In astrology, memory was governed by Saturn, the ruler of black bile and melancholics.²³ Medieval medicine provided several recipes usually made from herbs like ginger and camomile for strengthening memory. The effect was directed to where the memory was located: *De bonitate memorie*, attributed often to one the most famous doctors and astrologers in the Middle Ages, Arnaldus Villanova, suggests washing the head (and apparently also the feet) in a liquid the contents of which include coriander, mastic, musk, fennel, salvia and laurel.²⁴

The medical tradition based on humoral pathology remained very much alive in the fifteenth century and created even closer connections with astrology. In his *De vita libri tres* (1489) Marsilio Ficino (1433–99), one of the leading humanists of the Florentine quattrocento, translator of *Corpus Hermeticum* and a reader of *Picatrix*, provided a plethora of remedies “by which the bodily parts, the spirit, the senses, the intelligence, and the memory may be strengthened.”²⁵ For Ficino, memory was the storage-room of the mind, and nurturing the body's natural moisture with appropriate treatments also supported the memory. The three remedies of the magi, for example, gold, frankincense, and myrrh, prevent the natural moisture from putrefaction and will sharpen one's intelligence as well as conserve one's memory.²⁶ Ficino also suggested that pills made from myrobalan, cinnamon, saffron, citron peel, melissa and aloe will strengthen the memory.²⁷ On other occasions he recommended ginger, honey, sweet flags, amber and musk.²⁸ Contrary to the common Western tradition,

¹⁹ Yates 1999, 74–76.

²⁰ Yates 1999, 82, 84.

²¹ Carruthers 2008, 37, 58–61.

²² Yates 1999, 59, 69.

²³ Raymond Klibansky, Erwin Panofsky & Fritz Saxl, *Saturn and Melancholy: Studies in the History of Natural Philosophy, Religion, and Art*, Nelson: London 1964, 131, 337.

²⁴ See e.g. Carruthers 2008, 61; Arnaldus Villanova (attr.), *De bonitate memoria*, Vatican City, Biblioteca Apostolica Vaticana, Vat. Pal. lat. 1180, 165v. The authenticity of the *De bonitate memorie* has been questioned.

²⁵ Marsilio Ficino, *Three Books on Life [De vita libri tres]*, ed. and transl. Carol V. Kaske & John R. Clark, *Medieval & Renaissance Texts & Studies in conjunction with the Renaissance Society of America*: Binghamton 1989, 2.16, pages 216–17.

²⁶ Ficino, *De vita*, 2.19, 228–31

²⁷ Ficino, *De vita*, 1.12, 138–41.

²⁸ Ficino, *De vita*, 1.15, 158–9.

Ficino did not associate memory with melancholy and Saturn: for him black bile was the enemy of memory, the effects of which had to be dispelled with appropriate recipes. Memory was governed by Mercury, to which Ficino dedicated a magical image related to memory.²⁹ I will discuss the image later in this article.

Memory had an important role in medieval culture and dozens of practical devices and aids were developed for training and improving it. Rhymes and rhythmical verses and various counting devices were age-old tools for remembering texts and other content.³⁰ Keywords, diagrams and signs were in constant use, and often the layout of a manuscript page was intended to aid memory. Hugh of St. Victor applied a method in which textual extracts were located on a table where each square was assigned a number. Applying another famous tool, the *divisio et compositio* technique, the text was divided into short segments that were arranged in a certain way.³¹ In some cases the visual layout of a manuscript simulated the architectural places used as *loci* in classical rhetoric.³² Furthermore, Quintilian's idea of memorising a text in numerical order and marking passages with *notae* (mental notes) led to the development of the *ars notaria* (art of using notes) in the Middle Ages. This *nota* could be a physical image or a mental sign, and individual letters could also be used as *notae*.³³

Many of these devices and traditions probably inspired the most popular magical book dedicated to learning in the Middle Ages, *Ars notoria* (not notaria). The earliest version perhaps originated in Northern Italy at the end of the twelfth century. It is a book aimed at students, asking the angels for knowledge of the seven liberal arts, philosophy and theology in the form in which the student was to adopt them. At the end of the thirteenth century, a new version appeared, containing abundant glosses giving clear instructions for performing a series of rituals. *Ars notoria* is not an easy short-cut for acquiring knowledge, however. The rituals consist of a preparatory ritual (c. 15 days) and four month-long periods. They include prayers and other Christian activities (e.g. alms and masses) and several elements familiar from traditions of medicine and magic. During the time between the student was supposed to study the subjects he desired.³⁴

The fourth month of the ritual was dedicated to contemplating or meditating on the visual figures called *notae*. Many manuscripts offer a proper *nota* for each discipline or art, with occasionally 3-4 *notae* for one art. Typically, a *nota* consists of texts (*oratio*) arranged in geometrically shaped spaces, occasionally decorated with plant motives and symbolic images. According to the editor or modern editor of *Ars notoria*, Julien Véronèse, a *nota* "is the adjunct that permits the transmission of knowledge into the spirit of the operator."³⁵ Véronèse also considers the possibility that *Ars notoria* would be a descendant of Neoplatonic theurgy of late antiquity,³⁶ but the medieval memory techniques (visual structures used in manuscripts, diagrams and signs called *notae*) and the

²⁹ Ficino, *De vita*, 1.19, 146–7; 3.12, 300–1; 3.18, 336–7.

³⁰ Carruthers 2008, 99.

³¹ Carruthers 2008, 100–1, 107–9.

³² E.g. Carruthers 2008, 118.

³³ Carruthers 2008, 135–6, 139, 142.

³⁴ Claire Fanger, 'Introduction', in Fanger ed., 2012, 4; Véronèse 2012, 38–48.

³⁵ Véronèse 2012, 43.

³⁶ Véronèse 2012, 56–8.

manuals of ritual magic available in Latin c. 1200 certainly provide a more plausible framework.

The ritual of *Ars notoria* includes an interesting experiment that resembles the medical recipes of the era. At the beginning of each period, the performer of the ritual should find four leaves of olive, laurel or vine and insert them in a new cup made of glass. After a fixed period, the performer should take the leaves out and mix them with saffron dissolved in rosewater. After that, he has to write a specific magical name (e.g. “Hagnadam”) on each leaf one at a time and put them in a glass of water so that the writing dissolves. Finally, he takes a sip of water and recites a verse from Psalm 118:66, *Bonitatem et disciplinam et scientiam doce me.*³⁷

Medieval tradition of magical images

Visual elements, such as signs, symbols, diagrams or visual patterns (e.g. *notae* in *Ars notoria*) are commonly found throughout medieval Latin magical literature. However, a number of works stand out from the corpus of learned magic, the focus of which is on making an image for a specific object, such as a ring or a pendant. Depending on the definition, c. 30–40 separate such Latin works have survived, usually – apart from few popular ones – in 1–5 copies only. The majority of these texts originate in the Hellenistic world and in Arabic culture. Most of them had been translated from Arabic in the twelfth–thirteenth centuries at the same time as the major works of natural science, medicine and astronomy. The differences between the works are great: some introduce one or two images or items, others more than forty; and some works introduce long rituals, experiments and performances connected to the fabrication of the image while others just describe the image with one sentence. In this branch of magical texts, the images were usually carved or painted on a gem or a plate. Another way was to cast three-dimensional objects in metal or mould them out of wax or some other soft material. The purposes were manifold, varying from protection, good fortune and curing disease to gaining knowledge, controlling demons and destroying towns. The iconography was usually based on an astrological programme: images were dedicated to planets, signs of the zodiac or mansions of the Moon, for example. Images to be fabricated were usually representative, such as personifications of planets, and instructions vary from a vague human figure to detailed descriptions of attributes, but also non-representative signs appear.³⁸

Modern scholarship has approached this tradition in varying ways. In this millennium the textual tradition of learned magic has often been divided into four main genres:³⁹ (1) Natural magic, which was based on the ideas of occult properties of natural species and astral influences. (2) Image magic, which shared the same principles, but the manuals were focused on fabricating images. (3) Ritual magic, which focused on summoning or conjuring spiritual beings by means of rituals and

³⁷ Véronèse 2012, 44.

³⁸ Láng 2008, 79–122; Frank F. Klaassen. *The Transformations of Magic: Illicit Learned Magic in the Later Middle Ages and Renaissance*, University Park, Pennsylvania: The Pennsylvania State University Press 2013, 33–56. Jean-Patrice Boudet, *Entre science et nigromance: Astrologie, divination et magie dans L'occident médiéval (XIIIe-XVe siècle)*. Publications de la Sorbonne: Paris 2006, 137–44, Paolo Lucentini & Vittoria Perrone Compagni, *I testi e i codici di Ermete nel Medioevo*, Florence: Polistampa 2001, 52–93.

³⁹ See e.g. Láng. 2008; Klaassen 2013; Page, 2013.

religious practices, but also other purposes occurred.⁴⁰ (4) Divination, which covers a vast variety of works and practices of clairvoyance and prediction.⁴¹ The genres have a lot in common – for instance they all apply images, symbols, textual formulas and suffumigations – and there is no explicit way to separate the genres by their content. The works introducing magical images have usually been located in image magic. Sometimes lapidaries have been included in image magic too (even those that do not even introduce carved images)⁴², but on the other hand many texts that present the fabrication of similar images, such as *Kyranides*, have been classified as texts of natural magic.⁴³ As these examples show, there is still no clear consensus regarding the definition of “natural magic” or “image magic,” nor systematic studies on their textual corpora.

The corpus of learned magic has also been approached from other perspectives. Several works introducing images are attributed to Hermes (or Mercurius) Trismegistus or other figures linked to the Hermetic tradition and are therefore known as Hermetic. In Hermetic studies, Hermetic magic has been divided into natural Hermetic magic, represented for example by *Kyranides*, and into ceremonial Hermetic magic that focuses on images and is strongly astrological and spiritual in nature. The sources of ceremonial Hermetic magic are translations from Arabic, which included invocations and long prayers dedicated to planetary spirits. Ceremonial instructions covered suffumigations and textual formulae, and in some cases included animal sacrifices, ritual garments and fasting. The same corpus of sources has been defined and discussed also with different terminology.⁴⁴ On the other hand, in the 2010s the concept of natural magic has sometimes been supplemented with (or replaced by) the concept of the magic of marvels which covers “magical practices within a broader natural philosophical framework.”⁴⁵ This includes works like Pseudo-Plato’s *Liber vaccae* and Pseudo-Albertian *De mirabilibus mundi* that operate with occult forces of nature and offer fanciful instructions, but introduce also images.⁴⁶ Liana Saif has recently argued that operative magic of Arabic origins (presented, for example in *Picatrix* and *Liber vaccae*) that uses natural ingredients, astrological knowledge and images, should be described just as natural or astral (magic).⁴⁷

⁴⁰ For ritual magic, see Lång 2008, 162–90; Boudet, 2006, 131–8, 145–57; Claire Fanger ed., *Conjuring Spirits: Texts and Traditions of Medieval Ritual Magic*. Sutton: Stroud 1998; Fanger ed., 2012.

⁴¹ For divination, see e.g. Lång 2008, 123–43; Boudet 2006, 89–118.

⁴² Klaassen included *De lapidibus* of Marbodius of Rennes and lapidaries attributed to Thetel/Techel in his list of popular works of image magic. Klaassen 2013, 35.

⁴³ Lång 2008, 55–61. *Kyranides* (or *Cyranides*) is a pseudepigraphic text ascribed to the Persian king Cyranos (and ultimately to Hermes Trismegistus), translated into Latin in 1169. Lucentini & Perrone Compagni 2001, 34–7.

⁴⁴ Paolo Lucentini and Vittoria Perrone Compagni, ‘Hermetic Literature II: Latin Middle Ages’, in Wouter J. Hanegraaff ed., *Dictionary of Gnosis & Western Esotericism*, Brill: Leiden, Boston 2005, 499–529; Antonella Sannino, ‘From Hermetic Magic to the Magic of Marvels’, in Page & Rider (eds.) 2019, 154–5; The concept “astrological Hermetic texts” used by Boudet refers roughly to the same corpus with the title “Magie hermétique et magie astral”, see Boudet 2006, 138–44. Lång refers with “operative Hermetic talismans” to similar practices. See Lång 2008, 104–19. The representatives of Hermetic image magic are listed in Lucentini & Perrone Compagni 2001.

⁴⁵ Sannino 2019, 153.

⁴⁶ Sannino 2019, 153–4.

⁴⁷ Liana Saif, ‘The Cows and the Bees: Arabic Sources and Parallels for Pseudo-Platos “*Liber Vaccae* (KITĀB AL-NAWĀMĪS)”’, *Journal of the Warburg and Courtauld Institutes* 79 (2016), 1–47, at 17.

As stated above, memory is an extremely rare topic in the Latin tradition of medieval magic. This is demonstrated by Dan Attrell and David Porreca in a numerical analysis in which they have divided the 2323 rituals of the Latin *Picatrix* into fourteen categories according to the rituals' objectives. In total, 751 rituals (c. 32%) are connected to "interpersonal relations" and 372 (c. 16%) to "Healing/health". The third largest category, "knowledge/skills" is connected to 229 rituals (c. 10%).⁴⁸ This category includes six rituals related to memory,⁴⁹ two of which are intended for losing or destroying memory, whereas only three are clearly intended to strengthen memory. Two of the latter include images. This means that c. 0.26% of all rituals and less than 1.5% of all magical images (there are c. 140 image instructions in total) introduced in *Picatrix* deal with memory. Although this analysis is based on a single compendium only, these figures are quite accurate in relation to the whole corpus of Latin learned magic: only a minuscule part of known magical procedures in Latin sources are connected to memory. The paucity of memory-related instructions is also striking in the tradition of magical images (including *Picatrix*), to which I now turn.

Images for memory in medieval sources

De XV stellis

One example of magical images is included in the *De quindecim stellis quindecim lapidibus quindecim herbis et quindecim imaginibus* (hereafter *De XV stellis*). The *De XV stellis* lists fifteen fixed stars, together with a stone, a herb, and an image for each star. Latin tradition recognizes three different versions of the treatise, based probably on three Arabic interpretations of a Greek exemplary now lost. The version ascribed to Hermes discusses stars, stones, herbs, and images in separate sections: the properties and effects of stones and herbs are presented, whereas the properties of the stars and images themselves are not mentioned. The versions ascribed to Enoch and (probably falsely) to Thābit ibn Qurra represent stones, herbs, and images as ritual entities, whose purpose is to complete a ring dedicated to the appropriate star.⁵⁰

The images to be sculpted on stones are ordinary anthropomorphic and zoomorphic figures: male and female characters in simple actions, and ordinary animals such as a rooster and a raven. The decapitated head is the only grotesque image.⁵¹ The properties of the items are quite universal ones and typical for texts introducing magical images. For example, they can increase wealth or courage, bring benevolence from spirits, protect from magic, expel demons and cure illnesses.⁵² Mental or intellectual capacities are mentioned directly only in the case of the thirteenth star, Cor Scorpionis. In Hermes's version the star has two stones: *sardius* causes a healthy colour (of the

⁴⁸ Dan Attrell & David Porreca, 'Introduction', in Majrīṭī, Maslamah ibn Aṣmad, Dan Attrell & David Porreca, *Picatrix: A Medieval Treatise on Astral Magic*, University Park, Pennsylvania: The Pennsylvania State University Press, 16–18.

⁴⁹ Attrell & Porreca 2019, 24.

⁵⁰ Lucentini & Perrone Compagni 2001, 44–9. Louis Delatte, *Textes latins et vieux français relatifs aux Cyranides: Le Compendium aureum, Le De XV stellis d'Hermes, Le Livre des secrets de la nature*, Bibliothèque de la Faculté de philosophie et lettres de l'Université de Liège: Liège 1942, 235–89.

⁵¹ Delatte 1942, 273–4.

⁵² Delatte 1942, 259–63.

skin, i.e. complexion), while *ametistus* expels demons and offers protection from them. In the versions attributed to Hermes and Thābit, the herb of Cor Scorpionis, *aristologia*, has connection to memory.⁵³ Hermes's version relates that *aristologia* (also designated as *thora*) has a bitter taste; inserted under a sardius stone it makes its bearer intelligent, and even if he is not wise, he appears to be. The item must be made when the Moon is in the ascendant in Cor Scorpionis. Furthermore, the item makes its bearer of a good colour (i.e. complexion) and makes his memory "remain sane."⁵⁴ The image to be carved on the stone shows an armed man acting violently with his sword.⁵⁵ In the version ascribed to Enoch the stones can bind demons (*sardis*) and provide a good colour (*amatista*)⁵⁶; the whole ring provides "a good intellect, good colour and good memory."⁵⁷ To sum up, in both cases the complete item is connected to a good colour, to memory and to another cognitive skill, intelligence. This is the only case in *De XV stellis* related to mental capacities, but the effects fit reasonably well into the expectation horizon of the work and do not deviate radically from its general ethos.

Picatrix

The Latin *Picatrix* is a large compendium of Arabic origin translated into the vernacular c. 1256–8 in the court of Alphonse the Wise of Castile, and soon afterwards into Latin.⁵⁸ *Picatrix* and its Arabic original *Ghāyat al-Hakīm* ("Aim of the sage") consist of four books introducing both theoretical sections and hundreds of magical images, recipes for potions and unguents, experiments, rituals and prayers collected from various sources.⁵⁹ As mentioned earlier, in the Latin *Picatrix* there are three instructions intended to strengthen the memory. The seventh chapter in the fourth books introduces recipes and experiments according to a source called *Chaldaen Agriculture*. One

⁵³ Delatte 1942, 255, 264, 270, 274, 285–6.

⁵⁴ Delatte 1942, 270: "Tertia decima herba est aristologia longa sive thora; cuius flos rubeus est et sapor amarissimus. Hanc cum parco de toxico sub lapide sardio pone et deferentem secum facit intelligentem et quamvis non sit sapiens, tamen apparet. Hoc fiat cum Luna fuerit cum Caldalacrab, id est Cor Scorpionis, in ascendente. Hoc quidem opus bonum retinet colorem in homine et sanam retinet memoriam in deferente et reddit hominem provectum et intelligentem."

⁵⁵ Delatte 1942, 274: "Tertia decima sicut homo armatus vel loricatus ad faciendum malum cum ense in manu."

⁵⁶ Delatte 1942, 285: "Cor Scorpionis [--] Lapis eius est sardis et cum illa est amatista. [--] Virtus Sardinis est constringere daemones, virtus amatistae est dare bonum colorem ; [--] Herba eius est aristologia longa et est flos eius rubeus et sapor eius amarus."

⁵⁷ Delatte 1942, 286: "et iste anulus dat bonum intellectum et bonum colorem et bonam memoriam. Figura eius est sicut homo armatus cum lorica et cum ense in manu."

⁵⁸ The documented circulation, however, did not begin until the 1450s. See e.g. Attrell & Porreca 2019. For Latin edition, see *Picatrix: The Latin Version of the Ghāyat Al-Hakīm: Text, Introduction, Appendices, Indices* (henceforth *Picatrix*), ed. David Pingree, The Warburg Institute: London 1986. See also Boudet, Caiozzo & Weill-Parot 2011.

⁵⁹ *Ghāyat al-Hakīm* is attributed to Maslama b. Qāsim al-Qurtubī (d. 964), who compiled the work in Islamic Iberia possibly c. 954–9. For *Ghāyat al-Hakīm*, see e.g. Attrell & Porreca 2019, 1–7, and David Pingree, 'Some of the Sources of the *Ghāyat al-hakīm*', *Journal of the Warburg and Courtauld Institutes* 43 (1980), 1–15. For the authorship and date, see Maribel Fierro, 'Batinism in al-Andalus. Maslama b. Qasim al-Qurtubī (d. 353-964), author of the *Rutbat al-Hakīm* and the *Ghāyat al-Hakīm (Picatrix)*', *Studia Islamica* 84:2 (1996), 87–112. For a modern translation, see A. M. Maḥrīṭī, "*Picatrix*": *Das Ziel des Weisen von Pseudo-Maḡrīṭī* (henceforth *Ghāya*), trans. (German) M. Plessner & H. Ritter. The Warburg Institute: London 1962.

recipe suggests that if someone sows the seeds of a watermelon in a human skull and later eats the melons that grow from it his intellect and memory will benefit, but if the seeds are sown in the skull of a donkey, the mental abilities will decrease. The propitious effects are attributed to Saturn and Mars, and, also to the human brain that had been in the skull used for the germination.⁶⁰

The memory is also related to the two images shown in the *Picatrix*. *Ghāya* and *Picatrix* introduce magical images connected to planets mainly in the tenth chapter of the second book in two successive units. The first unit describes the images of seven planets according to four different sources or authors.⁶¹ The second unit, that partially makes use of the same iconographical types, includes dozens of individual talismans dedicated to the seven planets.⁶² It presents c. ten images for each planet.⁶³ The majority contain an iconographical description of an image, usually of an anthropomorphic or hybrid character. One image dedicated to the Moon mentions memory; it is an exception in that it contains no figure but shows four symbolic signs to be carved on the image:

[--] inscribe these signs on an emerald stone in the hour of the Moon with herself in the ascendant. Imprint incense with this stone and give that seal to a man, and he will have a good retentive memory [regarding knowledge].⁶⁴

The other image appears in the last section of the second unit that introduces one image for each planet. This section focuses solely on astrological timing and contains no iconographical description, but the context implies that the images should be human figures (possibly personifications of the planets). The image for Mercury is dedicated to memory and cognitive capacities:

In the hour of Mercury with Mercury ascending in the first face of Gemini, make images for sharpening the memory and the intellect regarding knowledge and wisdom or for acquiring mercy from individuals.⁶⁵

These two images for memory are in many aspects similar to most image descriptions in *Picatrix*: they introduce the planet, astrological information, the material of the image (in the case of the Moon) and its effects or functions. However, they are also unusual in one respect: whereas most images in *Picatrix* contain descriptions of representative pictures, such as human or animal characters, in these cases the iconographical information is absent.

⁶⁰ *Picatrix* 4.7.44, 214.

⁶¹ The authors are, in *Ghāya*, the Lapidary of Utārid, Apollonius, Kriton's book of talismans translated by Buqrātīs, and "other sources". The equivalents in the Latin *Picatrix* are Mercurius, Beylus, Picatrix and "other sages". *Ghāya*, 115–19; *Picatrix*, 2.10.10–38, 65–8.

⁶² *Ghāya*, 119–31; *Picatrix*, 2.10.40–87, 68–74.

⁶³ *Picatrix* 2.10.1–79, 64–73.

⁶⁴ "Si ex operibus Lune feceris ista signa in hora Lune. ipsa in ascendente. in lapide smaragdi, et si cum hoc lapide sigillaveris incensum ipsumque sigillum dederis homini. bonam memoriam habebit et retentivam scienciarum", *Picatrix* 2.10.79, 73; Attrell & Porreca 2019, 114, translation by Attrell & Porreca. The addition in brackets by the author of this article.

⁶⁵ "In hora Mercurii. prima facie Geminorum ascendente, facias ymaginem ad acuendam memoriam et intellectum in scienciis et sapienciis et gratiam ab hominibus acquirendam." *Picatrix* 2.10, 86, 74. Attrell & Porreca 2019, 114, translation by Attrell & Porreca.

Liber Mercurii

Memory plays a role also in the so-called *Book of Mercurius (Liber Mercurii)*, a short manual attributed to Hermes of which only a single fifteenth-century copy has survived.⁶⁶ According to David Pingree's hypothesis the text had been rendered from Arabic into Latin before c. 1225, but it is impossible to verify the date.⁶⁷ The text consists of a prologue (containing prayers and general instructions) and the description of two mercurial rings with appropriate rituals. The prologue starts by defining the agenda of the book: it has power in all sciences, wisdom, philosophy and in a third discipline, in public speaking and preaching and in teaching children.⁶⁸ The discipline mentioned after philosophy as an unusual abbreviation "*meam*" (with a superscript "*am*") is uncertain, but it can indicate memory (*memoriam*) or medicine (*medicinam*). The context makes memory a plausible guess. Next, the prologue introduces rituals (e.g. riding on a white donkey) and a long prayer to the spirit of the planet, in which the spirit appears as the source of clever minds, and of memory, purity and chastity.⁶⁹

The two rings of Mercury do not mention memory, but both are strongly connected to mental capacities. The first ring, the image of which shows a man using an abacus, can be applied to sciences, intellectual excellence, arts, arithmetic and rhetoric. It should be made of stone that comes from Mount Sinai when Mercury is in the 15th degree of Virgo.⁷⁰ The paragraph includes long rituals and prayers. In the second ring, the image is engraved on an emerald when Mercury enters Virgo. The image is of a man on a throne, with an eagle's feet and a cockerel on his head; in his left hand he holds a star, in his right a fire or a piece of paper. With the help of this ring the supplicant can ask everything he wishes from the planetary spirit. Long rituals (e.g. an animal sacrifice) and prayers devoted for the spirit of the planet are required.⁷¹

Liber Mercurii contains no other instructions, but it has close parallels in other sources. It can be seen as part of a wider tradition of Arabic origin, where the fabrication of astrological images

⁶⁶ Florence, Biblioteca Nazionale Centrale di Firenze (henceforth BNCF), ms. II.iii.214, f. 24^v–26^r. Lucentini & Perrone Compagni 2001, 63–4; Lucentini & Perrone Compagni 2005, 519.

⁶⁷ Pingree connects the date of composition to when the whole manuscript was copied. He assumes that all material on folios 1–49 had been translated and collected into the same corpus already during the first half of the thirteenth century. David Pingree, 'Learned Magic in the Time of Frederick II', *Micrologus. Natura, scienze e società medievali* 2 (1994), 39–56, at 41–2, 52, 54.

⁶⁸ BNCF, ms. II.iii.214, f. 24^v: "[–] valet ad omnem scientiam inveniendam et sapientiam philosophiam et me[*]am et ad locutionem predicandi populo et ad doctrinandos pueros et discipulos et similia."

⁶⁹ BNCF, ms. II.iii.214, f. 24^v: "Happy is the one to whom you give your subtle mind and memory and cleanliness and chastity and meekness and affections." "Felix ille cui tu largiris subtilem mentem et memoriam et munditiam et castimoniam et mansuetudinem et caritates." Translation by the author.

⁷⁰ BNCF, ms. II.iii.214, f. 25^r: "Anulus primus valet ad omnem scientiam et ingenium contra inimicos et per illum et valere potere in abacum . et arismettricam et omnes artes. et arcuit linguam perficit sermones [–] Accipe lapidem qui venit ex monte synay [–] pinge super illam virum facientem suis manibus sicut ille qui computat abacum in dextra manu 6 et in sinistra vi. habentem in caput suum gallerum acutum et ille stans super palmam labores spicarum [–] Et hanc picturam incipias cum fuerit mercurius in XV gradu virginis."

⁷¹ BNCF ms. II.iii.214, f. 25^v: "[–] fac anulum et mitte in eo lapidem smaragdinum cum fueri] mercurius in virgine recto cursu. luna in primo gradu tauri. et pinge super lapidem illum virum sedentem super tronum et pedes eius similes pedis aquile et super caput eius gallum stantem. et sit in sinistra manu eius habens astorem et in dextra manu incensam habens. sit volumen cartule. et sub pedibus eius his caracteres. [–]", *ibid.*, f. 26^r: "ut facias michi omnia que a te petivi."

involves multi-faceted ceremonies and long prayers directed to the planetary spirits. In this tradition, images also have a large number of effects, based largely on the qualities associated with each planet in the Arabic astrological tradition. The second image, for example, has an iconographical parallel in *Picatrix*⁷², which also introduces long prayers dedicated to the planetary spirits. Further, the same manuscript (BNCF ms. II.iii.214) contains other texts that describe ritually prepared magical images of other planets following the same pattern as in the Book of Mercury: an anonymous text presents the fabrication of a ring of Venus, and a text known as *Liber planetarum* introduces a set of rings of Saturn, Jupiter and Mars.⁷³

Mercurius example (*Erectio signaturae Mercurii*)

In addition to these medieval exemplars, there is a source preserved from the beginning of the seventeenth century, which may however be based on medieval precedents. It is a short text that introduces the fabrication of a Mercury talisman for memory and includes relevant rituals and recipes. The text appears independently in a seventeenth-century manuscript (MS Sloane 3663) with the title *Erectio signaturae Mercurii pro acuenda memoria*.⁷⁴ The same text appears (inc. *Exemplo fit Mercurius*) in a slightly longer form in Rudolph Goclenius the Younger's medico-magical work printed in 1608 (*Oratio, qua defenditur vulnus non applicato etiam remedio*) as part of a larger body of work without its own title, and reappears in Goclenius's later works published in 1610 and 1613.⁷⁵ Goclenius's work that contained the talisman of Mercury was later included in the *Trinum magicum* compilation, printed at least in 1614 and 1630.⁷⁶

So far, I have not come across a pre-seventeenth century copy of *Erectio signaturae Mercurii*, but its textual history and content have a strong connection to medieval magic. In all the sources mentioned above, it is preceded by a certain set of texts presenting medieval magical images or a summary of these texts. These texts are: *Sigilla Raphaelis* (2^v in Sloane 3663), *Imagines seu sigilla Chaelis* (3^r–4^v), *Sigilla Hermetis* (5^r–6^r), *Imagines seu sigilla Thetelis* (6^v), and *Imagines et sigilla salomonis* (7^r–11^v). In the Sloane manuscript and *Trinum magicum* compilation they appear in their entirety and in this order⁷⁷, while in Goclenius's works there are summaries and extracts from them intermingled with material from other sources. According to the front page of Sloane 3663, the whole manuscript would have been copied from an exemplar owned by Johannes Trithemius.⁷⁸ This is probably not the case: Trithemius's *Antipalus maleficiorum* (1508), that lists more than

⁷² *Picatrix* 2.10.68, 72.

⁷³ BNCF ms II.iii.214, f. 26^v, 33^r–38^r. In the study of Hermetic magic, all these texts have been considered typical representatives of the so-called ceremonial Hermetic magic. See Lucentini & Perrone Compagni 2005.

⁷⁴ London, British Library, MS Sloane 3663 [henceforth Sloane 3663], f. 13^v.

⁷⁵ Rudolph Goclenius the Younger, *Oratio, qua defenditur vulnus non applicato etiam remedio* [...], Hutwelcker. Marburg, 1608, 49–56; *Tractatus de magnetica curatione vulneris*, Hutwelcker. Marburg, 1610, 122–130. *De magnetica vulnera curatione*, Marburg 1613, 137–46. I would like to express my warm thanks to the anonymous reviewer for the valuable discovery that the Sloane text also appears in the works of Goclenius.

⁷⁶ *Trinum Magicum sive Secretorum Magicorum Opus*, Francofurtum 1614, 460–9.

⁷⁷ *Trinum Magicum* 1614, 406–60.

⁷⁸ Sloane 3663, 1^r: "E Ioannis Trithemii manuscripto eruta"

a hundred magical works known to him, includes none of the titles or incipits present in Sloane 3663.⁷⁹ Another early modern source, Camillo Leonardi's *Speculum lapidum*, however, published in 1502, includes mainly the same content as folios 2–11 in Sloane 3663.⁸⁰ Almost all these works were circulating in the middle ages: *Sigilla Raphaelis* (*Ragielis* in Leonardi's work) probably reflects the *Liber Razielis*, a compendium of magic also translated in the court of Alphonso.⁸¹ *Sigilla Hermetis* contains the magical images included in *De XV stellis* (in Sloane 3663, the same images appear as a part of *Imagines et sigilla salomonis*).⁸² Both in Camillo's compendium and in Sloane 3663, the works attributed to Chael and Salomon consist mainly of images that circulated in the Middle Ages in popular lapidaries attributed to a pseudo-author Thetel, Theel/Cheel or Techel. The earliest versions of these works were in circulation in the thirteenth century at the latest.⁸³ The text attributed to Thetel in Camillo and Sloane 3663 belongs to the same tradition, but this recension is not known from earlier sources.

In Sloane 3663, these are followed by three short texts connected to each other: *De ratione conficiendi sigilla et imagines magicas* (12^v) discusses the importance of the astrological timing and the natural basis in the process of the astral influence. The afore-mentioned *Erectio signaturae Mercurii* (13^v) introduces a practical example: image of Mercurius for memory. Lastly, *Demonstratio rationum* (14^r–15^v) discusses metals and stones connected to planets. These three opuscula are included, in most parts and in the same order, in the printed works of Goclenius and in *Trinum Magicum*. The surviving form of this section is clearly an early modern product: Goclenius's work published in 1608 and Sloane 3663 introduce propitious astrological timings of the year 1608 (later printed editions refer to 1610), and the texts use a few concepts, such as *goetia*, that were typical of early modern discussions.⁸⁴ However most of the content of the texts represents concepts that were generally known in fourteenth-century Europe at the latest, many already in antiquity. In the absence of a wider study, it is difficult to say whether the Mercurius section is Goclenius's own innovation based on earlier sources, or whether it is an adaptation of an earlier work that was modi-

⁷⁹ Boudet 2006, 539–56.

⁸⁰ Camillo Leonardi, *Speculum lapidum*, Augustae Vindelicorum 1533, 54^a–64^a. See also Moritz Steinschneider, "Pseudo-Trithemius und Camilus Leonardi," *Zeitschrift für Mathematik und Physik: Historisch-literarische Abtheilung* 20 (1875), 25–27.

⁸¹ Leonardi 1533, 54^{ab}. Boudet 2006, 129. Sophie Page, 'Uplifting Souls: The Liber de essentia spirituum and the Liber Razielis', in Fanger (ed.) 2012, 79–112.

⁸² There are also some other differences between Sloane 3663 and Camillo Leonardi's *Speculum lapidum*. Some images, that in Camillo's work appear in the text attributed to Salomon, are in Sloane 3663 in the text ascribed to Chael. The images replaced by them in Chael's text appear, in turn, in the text attributed to Hermes.

⁸³ For Techel, see David Pingree, 'The Diffusion of Arabic Magical Texts in Western Europe', In Biancamaria Scarcia Amoretti ed., *La diffusione delle scienze islamiche nel medio evo Europeo*, Accademia nazionale dei Lincei: Roma 1987, 64–7, and Katelyn Mesler, 'The Medieval Lapidary of Techel/Azareus on Engraved Stones and Its Jewish Appropriations', *Aleph: Historical Studies in Science and Judaism* 14:2 (2014), 75–143.

⁸⁴ E.g. Sloane 3663, 13^r. The term *goet(h)ia* refers here to invocation of demons. It is connected to a grimoire known as *Clavicula Salomonis* that might have been in circulation as early as c. 1300, but the earliest surviving copy derives from the late fifteenth century and the work only became popular in the sixteenth century. See e.g. Boudet 2006, 353–9; and Klaassen, 'Necromancy', in Page & Rider ed., 2019, 201–11, at 203. Similarly the term *goetia* became more popular in early modern discussions on magic, for example in Johann Weyer's *Pseudomonarchia Daemonum* (1577).

fied at the beginning of the seventeenth century.

The beginning of the Mercury text (*Erectio signaturae Mercurii* in Sloane 3663) is almost the same in all sources, but at the end of the text, the printed version introduces a section which is missing from Sloane 3663. The preceding section (*De ratione conficiendi sigilla et imagines magicas* in Sloane) explores the requirements and functioning of astrological images. *Erectio signaturae Mercurii pro acuenda memoria* gives a practical example. It is dedicated, as the title implies, to Mercurius and memory. The first phrase broadens the scope: Mercury influences the intellect, modes of thinking and memory.⁸⁵ He/she who seeks Mercurial influences should observe when Mercury stays in Gemini or Virgo; at a propitious moment, a sculpture should be made in pure silver in a skilful way. The appearance of the figure is not related, but presumably it is a small figurine that depicts the planetary deity. The sculpture should be stored wrapped in white silk in a tiara in a place where it is in contact with the brain. In 1608 the proper timing for the operation is on 11 May at the second hour of morning, or on 14 or 15 September slightly before the fifth hour of morning, when the Sun and Jupiter are in favourable positions. The second paragraph reminds the reader that not only heavenly bodies but also plants and animals can assist in providing many benefits for intellectual capacity and memory. The author claims to know that many famous and learned men who have successfully used these secret methods that he now intends to make public.⁸⁶

The third paragraph describes an operation that utilises parts of animals and plants. The ritualist should take seven hearts of swallows (still throbbing), eleven (or two?) hearts of turtle doves and a miscellany of herbs and spices (e.g. dried mint, pennyroyal, coriander, rosemary etc.). These ingredients need to be ground into a fine powder to be mixed with fennel water. From this paste pills are formed. For the following fifty days the ritualist should purge his body with a rigid diet. At night, just before falling asleep, he must put a pill in his right nostril for the time it takes to read twenty verses of Vergil. Another pill (moistened with rose water) should be kept in his left nostril during the daytime. As a result, he will remember everything and understand everything quickly with his intelligence. One who wants to protect his memory must avoid drunkenness, the pleasures of Venus, indigestion of the stomach, green fruits and vegetables. There are still other uses for the pills: one can throw them on burning coals and inhale the smoke that arises. One can also dissolve them in water flavoured with herbs and anoint those body parts that are located “around the capsule of memory” (*circa memoriae capsulam*) with it – that is, the forehead, temples, nostrils, and the back of the head. At the end of the third paragraph the author relates that this “remedy” has been revealed to only very few.⁸⁷

The fifth and sixth paragraph in the printed sources introduce new recipes and diets that apply largely the same materials and methods: the inhalation of vapours and washing one’s head with the liquid made for it. Lastly, one’s temples, forehead and the “little storage of memory” (*memoriae cellula*) will be anointed with an unguent made of herbs and animal parts.⁸⁸ These paragraphs are

⁸⁵ “Exemplo fit Mercurius, cuius influxum si quis pro intellectu, ingenio, memoriaque acuendam conciliare sibi cupit [–]”, Sloane 3663, f. 13^r.

⁸⁶ Goclenius, *Oratio* 1608, 49–51.

⁸⁷ Goclenius, *Oratio* 1608, 51–3.

⁸⁸ Goclenius, *Oratio* 1608, 53–5.

missing from the Sloane manuscript. The last chapter provides a reminder that the benefits of other planets can be attracted in similar ways if the magician is aware of the propitious moments.⁸⁹ In the printed editions, the text with the title *Demonstratio Rationum* in Sloane continues directly from here.

The contexts of images for memory

The four sources discussed above do not form a completely unified and coherent whole. The images related to memory occur in varying contexts and can be divided into different types that are subject to the conventions, formats and agendas of their original source. First, cases in *Picatrix*, *Liber Mercurii* and *Erectio signaturae* are principally instructions for fabricating an item. *De XV stellis*, in turn, focuses on stars and introduces stones, herbs and images connected to them. The final purpose, however, is a ring with a carved stone, and the chapters in Enoch's version in particular do not differ drastically from image descriptions in other texts of image magic. The rings in *Liber Mercurii* are characteristic of ceremonial Hermetic magic – they require long rituals, suffumigations, sacrifices, ritual costumes and long prayers to (or invocations of) planetary spirits. *Erectio signaturae* represents a slightly different approach: instead of prayers it includes a long section dedicated to natural ingredients.

Second, the importance and role of memory varies in the exemplars. Generally speaking, there are no “pure” images for memory. Usually memory appears as one of many purposes of the item: In *De XV stellis*, the ring brings good colour, memory and intelligence, in *Picatrix* the image of Mercury acquires memory, intellect, wisdom and grace. In *Liber Mercurii*, Mercurius can afford cleverness, memory, purity and chastity, though the effects of rings do not include memory (the first one, however, lists other mental capacities). The image of the Moon in *Picatrix* is more dedicated to memory, or, more precisely, to a good retentive memory concerning sciences. Only in *Erectio signaturae* is memory mentioned as the main purpose of the item; it appears in the title and is repeated in the text. Even here, however, other intellectual properties connected to memory are also mentioned.

Third, although the texts of image magic sought the status of a learned treatise and occasionally applied detailed astronomical information, their connection to academic theories of natural philosophy is, at first glance, accidental and vague. As the evidence have shown, the mental capacities (or any capacities) such as memory and intelligence are never defined nor classified in manuals of image magic. Nor is any background knowledge provided: memory is not connected to theories of medicine or theories regarding the composition of soul or mind – memory and intelligence just appear as fixed properties. There is, however, a clear and fixed framework in which memory appears in texts of image magic. It is associated occasionally with physical properties (good colour) and virtues (chastity, purity), but in all cases it is systematically connected to intelligence, a major cognitive capacity of the higher soul. It is often also related to wisdom (*sapiens*, *sapientia*) in *De XV stellis*, *Picatrix* and *Liber Mercurii*, and to sciences in *Picatrix* and in the first ring in *Liber Mercurii*. Even though the scribes and supposed readers of these texts did not trouble themselves

⁸⁹ Goclenius, *Oratio* 1608, 55–6.

with the question of defining what memory is, memory's context is clear – and pretty much the same as it was in medieval natural philosophy, medicine and memory manuals: it belongs to the higher capacities of soul, it can be paralleled with intellect, and is related to sciences and liberal arts.

This having been said, although the discussed texts do not in themselves provide a clear explanation of how images and rituals affect memory, the texts are nevertheless compatible with other medieval literature dealing with memory. It can be assumed that a medieval reader who was perhaps familiar with philosophical literature and other sources of image magic probably also considered the images that affect the memory to work according to the explanatory models presented in other literary genres and sources. In the medieval thinking, natural magic and image magic were theoretically based on the hidden forces of nature and the cosmos. One section of image magic was more ceremonial and spiritual. It included invocations and long prayers dedicated to planetary spirits. Ceremonial instructions covered suffumigations and textual formulae, and in some cases included animal sacrifices, ritual garments and fasting. *Liber Mercurii* belongs to this tradition. Another section is based on natural forces without references to spiritual beings. These texts, as with many works of natural magic, may introduce parts of plants and animals, items to be fabricated (such as rings or amulets), potions or unguents. These works include, for example, Thābit ibn Qurra's *De imaginibus*, Pseudo-Ptolemy's *Opus imaginum*, and popular lapidaries.⁹⁰ *De XV stellis*, *Erectio signaturae* and memory-related instructions in *Picatrix* represent this tradition. In the cases of both traditions, astrology and medicine served as central pretexts.

Astrological approach: Memory as a Mercurian property

Astronomy, astrology and the idea of the radiation of celestial bodies formed one substantial framework for the function and effectivity of magical images in all cases examined. Magical images were believed to attract the effects of the stars to the bearer of the images. In different explanatory models, this was considered to happen either due to the properties of the image or due to the effect of the item's materials and manufacturing method. In the astrological context, certain species, materials, temperaments and arts and professions, as well as different qualities and capacities of mind, were connected to certain planets and signs. Memory and intellectual skills were often connected to the melancholic temperament and to its grim but steady ruler, the planet Saturn. For example, Al-Qabisi stressed that Saturn, although a "malevolent" planet, presides over "experience of things, the keeping of a secret and its concealment,"⁹¹ and Ramon Llull connected Saturn to good memory and profound knowledge.⁹²

The planets and signs play a remarkable role also in all cases discussed here, but Saturn is never mentioned. In *De XV stellis* the star Cor Scorpionis is connected to Mars (domicile of Scorpio) and Jupiter⁹³ and to the Moon⁹⁴, but properties of planets are not brought into wider discussion. In

⁹⁰ E.g. Klaassen 2013, 35.

⁹¹ Quoted after Klibansky, Panofsky & Saxl 1964, 131.

⁹² Klibansky, Panofsky & Saxl 1964, 337.

⁹³ Delatte 1942, 255, 285.

⁹⁴ Delatte 1942, 264, 270, 285.

Picatrix, memory is connected once to the Moon.⁹⁵ In other cases – the Mercury image in *Picatrix*, *Liber Mercurii* and *Erectio signaturae* – the planetary ruler of memory is Mercury. The Mercurial connection is emphasised also elsewhere in the Latin *Picatrix*, which dedicated memory exclusively to Mercury’s realm. The third book discusses how the properties of planets connect memory along with several other cognitive skills systematically to Mercury:

Mercury is the source of intellectual power. He governs an aspect toward learning knowledge and wisdom, dialect, grammar, philosophy, geometry, astronomy with its processes [--]. From the inner organs, he governs the brain and the heart from which emanate the intellect, the powers by which beings are organized, and the sensory memory.⁹⁶

[--]

He [Mercury] signifies sense perception and the rational mind, good eloquence, a strong and profound understanding of matters, good intellect, good memory, good apprehension, the quick mind suited to acquiring knowledge [--].⁹⁷

The alliance of Mercury and memory appears strong also in another source of astrological magic of Arabic origin, *Liber Mercurii*, which connects memory not so much to the rings of Mercury but to the planet/divinity itself. In these sources the realm of Mercury is thoroughly intellectual: Mercury governs – in addition to eloquence and rhetorical skills emphasised in the classical tradition – the sense, the rational intellect and the memory, and certain sciences and arts from arithmetic to astrology. The strong connection of memory with intelligence, wisdom and mastery of science in image magic is indubitably based on this Mercurial connection inherited from Arabic magic.⁹⁸

The medieval tradition to connect memory and intelligence to Mercury in the context of magical images had its implications also for Renaissance medicine. When Marsilio Ficino discussed “Figures of the celestials the ancients engraved in images” in the third book of his *De vita libri tres* (1489) and introduced images for the seven planets, he dedicated the image of Mercury to intelli-

⁹⁵ *Picatrix* 2.10.86.

⁹⁶ *Picatrix* 3.1.8, 94. Translated by Attrell & Porreca 2019, 134.

⁹⁷ *Picatrix* 3.7.14, 116. Translated by Attrell & Porreca 2019, 157.

⁹⁸ There is strong reason to believe that the connection between memory and Mercurius in Arabic magic is based on the ancient Mesopotamian deity Nabū and the Egyptian god Thoth. Nabū was the scribe of the gods, associated with the planet Mercury. Thoth was the divine scribe, lord of wisdom, and ruler of languages and sciences, who also regulated religious cults, laws, rituals and the arts of magic. In Hellenistic times, Thoth was associated with Hermes Trismegistus. In the polytheistic communities of early medieval Harrān, Nabū was associated with Thoth and Trismegistus. It has been suggested that it was in Harrān that Nabū-Thoth became the Mercurius ruling the sciences and arts, which appears in *Ghāyat al-Hakīm* and *Picatrix* and spread to the west with the translations of astrological magic. The influence of Nabū can also be seen in the iconographic depictions of the *Picatrix* and the *Liber Mercurii*. In oriental sources the attributes of the four-armed Mercurius were, for example, a book, fire and a writing reed, while in the *Liber Mercurii* there is a fire and a piece of paper referring to a book. Anna Caiozzo, *Images du ciel d’orient au Moyen Âge : une histoire du zodiaque et de ses représentations dans les manuscrits du Proche-Orient musulman*, Presses de l’Université de Paris-Sorbonne: Paris 2003, 133, 154, 171, 196; Garth Fowden, *The Egyptian Hermes. A Historical Approach to the Late Pagan Mind*, Princeton University Press: Princeton 1993, 22–3.

gence and memory:

They made the image of Mercury for intelligence and memory when the first face of Gemini was ascending. Likewise against fevers Mercury was engraved: a man holding a javelin in the hour of Mercury when Mercury was rising. They used to carve this image in marble [--]. The form of Mercury: a man sitting on a throne in a crested cap, with eagle's feet, holding a cock or fire with his left hand, winged, sometimes on a peacock, holding a reed with his right hand, in a multicolored garment.⁹⁹

Ficino's magical images in *De vita* are heavily dependent on the Latin *Picatrix*, and he possibly applied also *Liber Mercurii* to construct his vision of the mercurial image for memory.¹⁰⁰ The connection between memory and Mercury appears also strongly in another piece of early modern evidence, Goclenius's text (or *Erectio signaturae*). If it is a completely early modern creation, the influence of *Picatrix* and Ficino could have played a crucial role.

Medicine and powers of nature

Along with philosophy, astrology, and the tradition of magical images, the influence of operative models in the fields of medicine and natural magic on memory-strengthening images is apparent. In ancient and medieval philosophy, memory was seen as a capacity located in higher parts of the soul and as a storehouse that was able to retain the information produced by sensations in the mind. Manuals of magic have no echoes of these complicated constructions, but, and more importantly, according to medieval medicine, memory as a physical object is situated in the brain (in the forehead, to be precise).¹⁰¹ In the Latin *Picatrix*, the properties of the brain are transferred to watermelons whose seeds are planted in the human skull. In *Erectio signaturae* the brain is affected in several ways: for example the small figurine should be kept in a tiara in a place as close to the brain as possible. Furthermore, the water in which the magical pills have been dissolved should be brushed on places that surround the "capsule of memory" (i.e. the brain) from four capital directions: on the forehead, the temples, and the back of the head.

In *Erectio signaturae*, the memory is also strengthened by positing pills and magical water in the nostrils or inhaling vapours. The nostrils are located naturally in proximity to the brain, but this procedure may bring to mind also the medical theory of *pneuma* (Lat. *spiritus*). Many ancient theories suggested that blood and air run in the same arteries and associated blood with spirit and soul.¹⁰² Both blood and air were later connected to a specific *pneuma* which the Stoics traditionally viewed as a vital intrinsic principle (containing air and fire) that permeates the entire cosmos and

⁹⁹ Ficino, *De vita*, 3.18, 336–7.

¹⁰⁰ See Lauri Ockenström, 'Refined Resemblances: Three Categories of Astromagical Images in Marsilio Ficino's *De vita* 3.18 and Their Indebtedness to "Abominable" Books', *Magic, Ritual, and Witchcraft* 9:1 (2014), 1–32. I and Susanne Beiweis have argued elsewhere that Ficino deliberately connected memory in Mercury instead of Saturn because of the anti-saturnine agenda of *De vita*. Susanne Beiweis & Lauri Ockenström, 'Memory, Mercury & Magic in Marsilio Ficino's *De vita*', *Rinascimento* 59 (2019), 1–26.

¹⁰¹ E.g. Averroës, *Commentarium Magnum in Aristotelis Physicorum Librum Septimum (Vindobonensis, Lat. 2334)*, eds. Wolfgang Kluxen & Horst Schmiejja, Schöningh: Paderborn 2007, 3.5.

¹⁰² C. R. S. Harris, *The Heart and the Vascular System in Ancient Greek Medicine: From Alcmaeon to Galen*, Clarendon Press: Oxford 1973, 14–18.

all life.¹⁰³ *Pneuma* was usually seen as an intermediary between soul and body, material and immaterial. In this way the air inhaled – through mouth or nostrils – was directly connected to soul and to mental capacities dwelling in its higher parts. In this sense there were strong scientific and medical premises for affecting memory by keeping small pills in one’s respiratory tract.

Furthermore, the habit of using pills has a strong background in natural magic and in the medical tradition connected to it. Pills were chiefly manufactured to be taken orally (on their own or in liquid) or to be burned as incense, but other methods were also applied. *Picatrix* abounds with rituals in which pills connected to certain planets are to be suffumigated¹⁰⁴ and introduces several pills that are to be swallowed¹⁰⁵. The tradition was well-known during the Renaissance, when Marsilio Ficino recommended medical pills connected to the planets.¹⁰⁶ *Picatrix* also introduces an example of a different way of locating the pills: certain tablets that serve as an antidote for deadly poison should be inserted in the nostrils, ears and mouth.¹⁰⁷

Although these practices presented in *Erectio signaturae* can be explained by ancient and medieval science, the work has no direct or clear references to any scientific theory or theorists, however. On the other hand, the practices themselves – such as the habit of using pills mentioned above – have conspicuous parallels in different traditions that were loosely based on ancient natural philosophy but were more inspired by popular practices: the traditions of practical recipes of medicine and natural magic. The medieval idea of nature was based on the occult properties and correspondences of natural products: plants, animals, stones and metals were supposed to incorporate invisible qualities or to channel the celestial influences. It was possible to activate these qualities and influences and benefit from them by treating the materials in certain ways, by mixing them together or by combining selected ingredients in items. The same basic ideas are evident for example throughout the Latin *Picatrix*, *De XV stellis* and in *Erectio signaturae*, which emphasises the power of natural products and their direct connections to celestial influences, with memory appearing as a heavenly gift: “And this way of sharpening the intellectual power and memory comes from the virtues of the heavens, and also from plants and animals.”¹⁰⁸

Erectio signaturae also follows this idea. It employs a dozen herbs familiar from several magical and medical treatises and texts between them, such as *Kyranides*. Commonly known spices and medicinal plants, which were believed to have generally good effects on health, are used in all sources to strengthen the memory. The same plants are linked to memory in many sources: ginger is mentioned in medieval medicine and Ficino, coriander and cinnamon in medieval sources and Goclenius’s work, melissa in Ficino and Goclenius, and so on. Even the ritual potion of *Ars notoria* applies the same herbs (laurel, olive, vine) that appear in other sources connected to memory. Also animals and their viscera appear regularly as ingredients in medieval medicine and natural magic – the swallow, turtle dove and their hearts mentioned in *Erectio signaturae* were among commonly

¹⁰³ Owsei Temkin, ‘On Galen’s Pneumatology’, *Gesnerus* 8 (1951), 180–9.

¹⁰⁴ E.g. *Picatrix* 3.7.17–18; 3.7.31; 4.6.2; 4.6.8.

¹⁰⁵ E.g. *Picatrix* 2.2.39; 3.11.114.

¹⁰⁶ Ficino, e.g. *De vita*, 1.20, 148–51.

¹⁰⁷ *Picatrix* 3.10.5.

¹⁰⁸ Sloane 3663, 13r: “Atque hic modus intellectivam potentiam memoriamque exacuendi e coelorum virtutibus est, ex vegetabilibus quoque animalibusque, [–].”

mentioned materials. Numerous parallels can be found in *Picatrix*, but also, among others, in *Liber vaccae*, a lengthy manual of experimental operations and marvels executed with natural products:¹⁰⁹ An experiment for producing *alcohol*, for example, requires the bile of a crane, the eye of a hoopoe, the eyes of three nestling swallows, the eye of a raven, and the heart of a black nestling.¹¹⁰

Also habits of using an ointment and washing or brushing the skin with liquids appear commonly in practices of medicine and natural magic. According to another experiment in *Liber vaccae*, if someone wishes to be able to see in the dark, he should anoint his face with the blood of a bat.¹¹¹ The idea of transferring properties by using material products and physical contacts was age-old and essential in the tradition of natural magic. This practice is also as plausible a background for “touching the brain” in *Erectio signaturae* as the theories of academic philosophy regarding the location of the memory.

In total, the magical images and experiments intended to improve memory are closely connected to practical medicine’s understanding of the functioning of the human body. They also were based on the practices that were used to treat and improve the human body and mind in the traditions of medicine and natural magic in general. It is also remarkable that the strongest manifestation of the medieval idea of natural magic can be found in *Erectio signaturae* which is known only through early modern copies. Emphasizing nature and its operational systems in *Erectio signaturae* may be the result of the increased interest in the secrets of nature in the sixteenth and seventeenth centuries, and on the other hand, of the desire to underline the naturalness and scientific background of the recipes. With this emphasis, it was also possible to avoid invoking spiritual beings and describing non-Christian images – methods that could have been accused of idolatry and heresy.

Conclusions

This study has explored the appearances and contexts of memory in medieval sources of image magic. Memory was an extremely rare theme in image magic. Approximately 1% of images of the whole corpus are related to memory. In total, memory appears in four textual sources. *De XV stellis* was translated into Latin in the eleventh century, and *Picatrix* and possibly also *Liber Mercurii* in the thirteenth century. Chronologically the latest memory image, the Mercury talisman for memory, was first published in Rudolph Goclenius the Younger’s work in 1608, and it also appears as a seventeenth-century manuscript (Sloane 3663) with the title *Erectio signaturae*. Its exact origin and date are not known. *De XV stellis* had a wide medieval circulation and the Latin *Picatrix* became more popular in the fifteenth and sixteenth centuries, whereas *Liber Mercurii* is known through one fifteenth-century copy.

There can be many reasons why memory was not a popular subject in learned magic. One reason is, however, obvious: in antiquity and the Middle Ages, there were so many proven ways to

¹⁰⁹ For the origin and Latin tradition of *Liber vaccae*, see Saif 2016, 1–47; Sannino 2019, 154.

¹¹⁰ BNCF ms. II.iii.214, f. 66v: “Accipe fel gruis et oculum upuope et oculos trium pulorum yrindinis et oculum corvi. et cor puli nigri [–].”

¹¹¹ BNCF ms. II.iii.214, f. 71r: “Si vis videre omnem rem profundam et in nocte quasi videas in die manifeste et non occultetur tibi parum neque parum et ligas libros in nocte nigra. Tunc unge faciem tuam cum sanguine vespertilionis erit enim id quod dixi tibi, [–].”

improve memory, and there was so much literature available on the subject that there was no great need for additional aids. On the other hand, there were no known infallible methods to achieve love, cure diseases, secure crops or win battles, so it is understandable that a significantly larger amount of literature in the field of magic was written for these purposes. However, the existence of these few magical instructions related to memory shows that even for such needs, for which there were plenty of working methods, there was a desire to look for less laborious shortcuts with the help of magic.

The concept of memory is not defined or classified in medieval sources of magic. The context of memory, however, is evidently intellectual and philosophical. *Memoria* appears in all cases together with intellect or intelligence, and usually with other mental and intellectual capacities too or as related to the sciences and arts; memory is therefore clearly paralleled with cognitive skills located in higher parts of the human soul in the theories of medieval philosophy. Second, magical images and instructions intended to improve memory are strongly based on the assumptions of medieval medicine and lean on medical practices. Along with medicine, they make extensive use of the selection of methods of the tradition of natural magic, that are based on the occult properties of plants, stones and animals. Third, like almost all medieval image magic, the material of this study is based on basic astrological assumptions and uses astrological teachings in several ways. Nevertheless, whereas traditional astrology often connects memory to the planet Saturn, in image magic it belongs to the realm of Mercury, the ruler of sciences and arts. This is manifest particularly in the medieval works of Arabic origin, i.e. in *Picatrix* and *Liber Mercurii*. The alliance of memory and Mercury revived in the early modern literary tradition, as the examples of Marsilio Ficino and *Erectio signaturae* testify.

The sources provide varying frameworks for images connected to memory. *De XV stellis* represents ancient practical magic that applies natural and astrological approaches. The carved images are a part of a combination together with a star, a herb and a stone. The short iconographic descriptions usually introduce a simple human or animal character. The two images connected to memory in *Picatrix* represent a simple type of an astrological image: both cases emphasise astrological timing, and representative images are not included or described. *Liber Mercurii*, in turn, represents the long type of astrological image description that includes long ceremonies and rituals. The anthropomorphic images, including all attributes and symbols attached to them, are described in detail. Memory appears as a capacity related to Mercury – the focus of the two images dedicated to Mercury is on cognitive skills, however, and mastering science and arts, not on memory.

The most interesting and largest example of a memory-oriented image instruction is contained in an early modern text included in Rudolph Goclenius's *Oratio, qua defenditur vulnus non applicato etiam remedio* (1608) and in MS Sloane 3663, where it is entitled *Erectio signaturae*. The image itself is not described: the focus is on the precise defining of the accurate astrological moment and on the extensive use of natural products for strengthening the memory. *Erectio signaturae* and two other sections connected to it (on folios 13–15 in Sloane 3663) emphasise the ideal of natural magic and reject other modes of magic. Memory appears as an intellectual power related to Mercury; it therefore represents a suitable theme for the strict ideal of natural, anti-idolatrous magic, and it possibly reflects a more general transformation of the magic at the beginning of the modern era.